



CHEM 2P20
SciFinder-n Exercise
Presentation
Fall 2023



Ian Gordon

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What is this guide for?

This guide for chemistry has been designed as a general program guide and is curated by [Brock librarians](#). It features links to most often used resources such as databases for books, peer-reviewed journal articles, theses, dissertations, open educational resources (OEDs), patents, standards, and more. Use the tabs on the left to navigate through the web page.

The [ACS Guide to Scholarly Communication](#) is an ACS publication that is constantly updated and provides access to the [ACS Quick Style Guide](#) that includes excellent information on writing, scholarship and style.

Selective course-related guides are provided when appropriate every term.

[CHEM 2P20 SciFinder-n Exercise 2023](#) (Word)

[CHEM 2P20 SciFinder-n Exercise 2023 Pilkington](#) (PDF)

[CHEM 2P20 SciFinder-n Exercise ppt slides](#) (PDF) and YouTube [video](#)



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several means including relevance, currency, n
reaction is cited by at least one scholarly source

Cite a relevant journal article, then filter by do
using ACS Style, (if you can't find a patent then

Note the use of [Zotero](#) to cite using ACS Style and c
different types of citations which is Part 4.3 in the [ACS](#)

7. Scholarly Peer Review. Determine whether the
is/are peer reviewed.

[What's Peer Review](#) (Brock Library, YouTube, 2

Are these articles peer reviewed?

Yes/no

How do you know?

8. Comment: How might accessing [SciFinder-n](#) or
course?

9. Comment: One thing you learned about the na
through this exercise?

10. Comment: One thing new you learned about S
of chemical information through this exercise?

Help is always available from the Brock Library
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with colleagues, connecting with chemistry ex
consulting with any number of disciplinary res
[Chemistry](#) Research Guide.

Don't forget to sign out of [SciFinder-n](#) when d

- h. For this [SciFinder-n](#) article select one [organ](#)
has enough references, reactions and sup
Registry Number you have chosen:

5. Chemical structure searching. This is important for
Start a new search and click on [SciFinder-n](#) search
this, click on the [SciFinder-n](#) Reactions option, click
Registry number from question 4h. Click on the T s
structure and click off "the Click and drag objects...
substances/ structures, short cuts, compounds, rea
structure searching reaction question... For this ex
next to the Draw icon when ready.

How many substances were found for this drawn s

6. Please provide the IUPAC name, registry number a
for your compound identified in question 4h:

IUPAC chemical name(s): _____
CAS Registry Number: _____
PubChem CID: _____
molecular formula: _____

Copy, cut and paste, or using a chemical drawing s
shot of an image or picture of your substance's che

Molecular or [chemical formulas](#) are never easy to
pharmaceuticals, theoretical and trade compound
conventions, styles and practices. CAS including [Sci](#)
that is an industry standard, but there are variant
naming convention and open database, see if you
[Brock Library Chemistry Research Guide](#) is a resour
on the "Chemicals / Drugs" tab to find alternate an

For this [SciFinder-n](#) substance, click on Reactions, f

How many reactions as a product are documented

Browse these reactions noting that you can further
sequences, database filters, document types includ

substances/types/classes of chemical compounds investigated and 3) varying instrumentation,
experimental equipment used as it relates to bio/synthetic/organic chemistry:

1. _____
2. _____
3. _____

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below that includ
you have an acco

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- e. For this s

- f. For this s

- g. For this s

CHEM 2P20 [SciFinder-n](#) Exercise

The objective of this exercise is to gain experience exploring the chemical literature; register and use
Brock's [SciFinder-n](#) database; learn how to create citations using ACS Style; explore chemical naming,
structure drawing, reaction and database searching strategies; and, be better informed of Brock
University chemists' research interests, productivity and expertise.

Go to the Brock Library Chemistry Research Guide to identify most-often used open and proprietary
books/[ebooks](#), web resources and scholarly databases. <https://researchguides.library.brocku.ca/CHEM>

Go to the [SciFinder-n](#) database link under the Chemistry Research Guide articles [tab](#) or the Brock Library
list of [databases](#) and click on "register" for an account. This requires you to move through the Brock
proxy server and create a unique [SciFinder-n](#) username and password. This registration is time limited so
follow up with email authentication asap. This account is yours and is different from your Brock proxy
username/password. Once you have an account for [SciFinder-n](#) remember to use your Brock proxy
username/password and then your unique [SciFinder-n](#) username/password to access this database. This
[SciFinder-n](#) access is yours as long as you are a member of the Brock University community.

Go to the Chemistry Department web site to review faculty and their research group's publications and
activities. <https://brocku.ca/mathematics-science/chemistry/directory/>

Select one of the following Brock Department of Chemistry faculty member that specializes in organic
chemistry from the following names: **Dudding, Duncan, Metallinos, Atkinson, Yan, or Zelisko**. Scan
these faculty research groups' web site, list of publications, profile, review their interests, and do a bit of
browsing before selecting your faculty member for this assignment.

Complete these ten questions using this form to get you thinking about scholarly research, chemistry
and adding value to your learning.

Add your name and student number: _____

1. Name the researcher to be used for this exercise writing out variations in the spelling of their
first/last name and/or initials that are often used in publications (this is really important!):

Does this researcher have an [ORCID ID](#)? <https://orcid.org/>

Yes/no (if so please include the [ORCID](#) URL and link, note whether it is open to the public)

Have you registered/created a personal [ORCID](#) ID?

Yes/no, if yes, indicate below, if not, do it today, it is free and list below!

2. Consult this faculty members research interests and publications to document keywords and
phrases that best describe 1) chemistry subject areas / topics researched 2)

7. Scholarly Peer Review. Determine

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Are these articles peer reviewed?

Yes/no **Yes**

How do you know? (create our own)

Provides review dates of reception, addresses, methodology and peer review

8. Comment: How might accessibility

In a sentence or two, think how this might affect your study.

9. Comment: One thing you learned from this exercise?

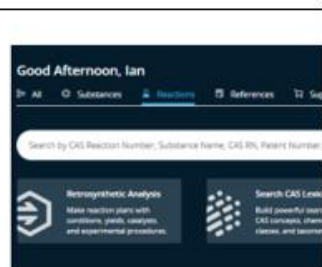
In a sentence or two, think how this might affect your study.

10. Comment: One thing new you learned from this exercise?

In a sentence or two, think how this might affect your study.

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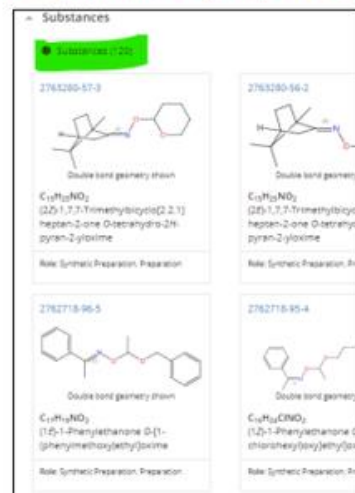
6. Please provide the IUPAC name, registry number, and molecular formula of the compound identified in question 4h:

IUPAC chemical name(s) **Ethanone, 1,2-dimethyl-**
CAS Registry Number **952-06-7**
PubChem CID **235383**
molecular formula **C14 H13NO**

Copy, cut and paste, or using a chemical drawing software e.g. ChemDraw or create a screen shot of an image or picture of your substance's chemical structure below:

g. For this SciFinder-n article record

SciFinder-n substances are registered small molecule compounds. This article involves many different substances to help researchers understand this and biologicals, SciFinder-n uses this database. It is filtered, added to reactions, sorted, and linked to other articles.



h. For this SciFinder-n article select references, reactions and supply the chemical structure of the compound chosen: **952-06-7**

CHEM 2P20 SciFinder-n Exercise

The objective of this exercise is to gain experience exploring the chemical literature; register and use Brock's SciFinder-n database; learn how to create citations using ACS Style; explore chemical naming, structure drawing, reaction and database searching strategies; and, be better informed of Brock University chemists' research interests, productivity and expertise.

Go to the Brock Library Chemistry Research Guide to identify most-often used open and proprietary books/ebooks, web resources and scholarly databases. <https://researchguides.library.brocku.ca/CHEM>

Go to the SciFinder-n database link under the Chemistry Research Guide articles [tab](#) or the Brock Library list of [databases](#) and click on "register" for an account. This requires you to move through the Brock proxy server and create a unique SciFinder-n username and password. This registration is time limited so follow up with email authentication asap. This account is yours and is different from your Brock proxy username/password. Once you have an account for [SciFinder-n](#) remember to use your Brock proxy username/password and then your unique SciFinder-n username/password to access this database. This SciFinder-n access is yours as long as you are a member of the Brock University community.

Go to the Chemistry Department web site to review faculty and their research group's publications and activities. <https://brocku.ca/mathematics-science/chemistry/directory/>

Select **one** of the following Brock Department of Chemistry faculty member that specializes in organic chemistry from the following names: **Dudding, Duncan, Metallinos, Atkinson, Yan, or Zelisko**. Scan these faculty research groups' web site, list of publications, profile, review their interests, and do a bit of browsing before selecting your faculty member for this assignment.

Complete these ten questions using this form to get you thinking about scholarly research, chemistry and adding value to your learning.

I have chosen **Dr. Pilkington** for this example, answers in red.

Add your name and student number: _____

1. Name the researcher to be used for this exercise writing out variations in the spelling of their first/last name and/or initials that are often used in publications (this is really important!).

Pilkington, Melanie or Pilkington, M.

Does this researcher have an ORCID ID? <https://orcid.org/>

Yes/no (If so please include the ORCID URL and link, note whether it is open to the public as well)

<https://orcid.org/0000-0002-9274-8512>

Yes, open to the public.

Have you registered/created a personal ORCID ID? If yes, indicate below, if not, do it today, it is free and list below!

<https://orcid.org/0000-0003-1128-3301>

2. Consult this faculty members research interests and publications to document keywords and phrases that best describe 1) chemistry subject areas / topics researched 2) substances/types/classes of chemical compounds investigated and 3) varying instrumentation, experimental equipment used as it relates to bio/synthetic/organic chemistry:

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Several databases provide access to regional, national and international **news** articles.

A select list of **databases** that include scholarly articles are listed below.

The **ACS Guide to Scholarly Communication** is an ACS publication that is constantly updated and provides access to the **ACS Quick Style Guide** that includes excellent information on writing, scholarship and style.

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 - Includes Beilstein (to 1959, Supplement IV); Gmelin (to 1975); and selected organic chemistry patents (1869-1980) with English-language chemical patents (US, WO, EP, 1976+) from selected primary IPC classes.
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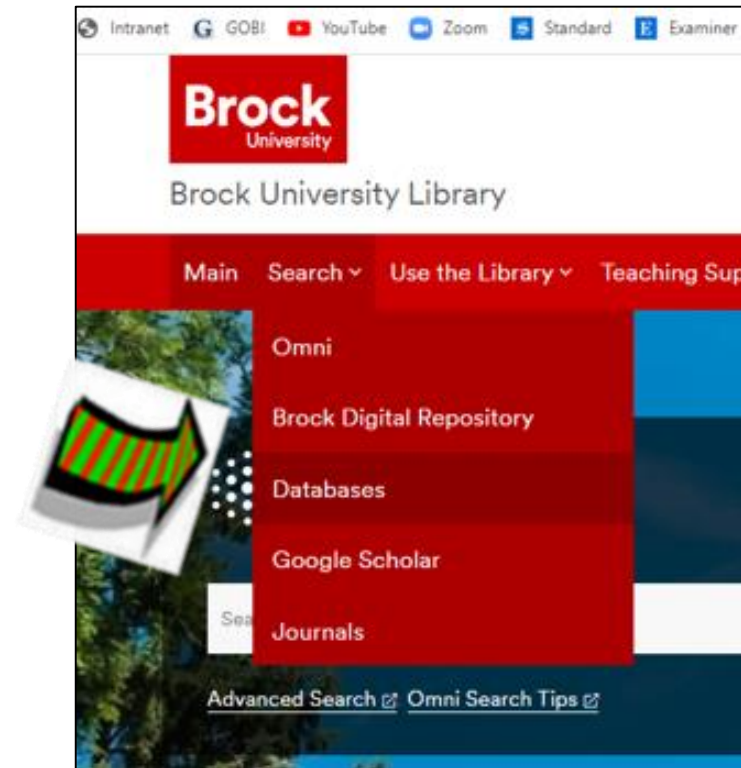


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Exploring the Coordination **Chemistry** of 3, 3'-Di (picolinamoyl)-2, 2'-bipyridine: One Ligand, Multiple Nuclearities

..., JM Rawson, M Murrie, M Pilkington - ... **Chemistry**, 2014 - ACS Publications

... Intrigued by the ability of L 3 to act as a scaffold for diverse structural motifs we investigated further its coordination **chemistry** with first row transition metal ions and report herein three ...

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..., G Delle Monache, M Pilkington... - **Chemical Society** ..., 2022 - pubs.rsc.org

... She received her PhD degree in Inorganic **Chemistry** from the ZNU in 2017 to investigate the "synthesis, characterization and catalytic activity of asymmetric manganese porphyrin ...

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..., H Shahroosvand, P Abbasi, M Pilkington... - **Chemical Society** ..., 2019 - pubs.rsc.org

... From 2010, he joined the faculty of **Chemistry** of the ZNU as an associate professor. His research encompasses molecularly engineered emitters for LEC application and HTM for PSC. ...

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[HTML] Coordination complexes of 15-membered pentadentate aza, oxoaza and thiaaza Schiff base macrocycles "Old Complexes Offer New Attractions"

EL Gavey, M Pilkington - **Coordination Chemistry Reviews**, 2015 - Elsevier

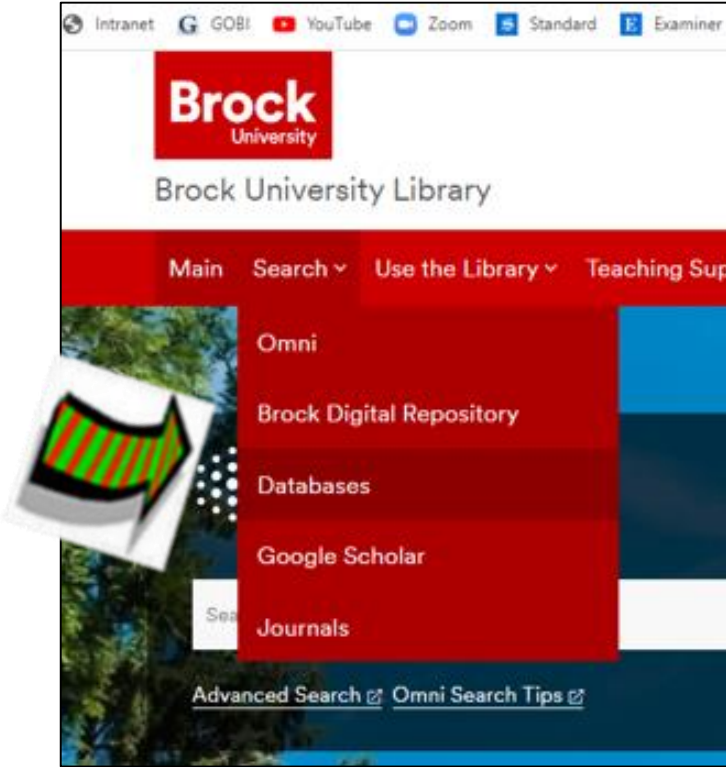
... The focus of this review is therefore placed on the coordination **chemistry** of a family of 15-membered (N 3 X 2) Schiff base macrocycles (L 1 –L 11) divided into two classes (rigid I, and ...

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Databases of interest to organic chemistry



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Go to the SciFinder-n database link under the Chemistry Research Guide articles [tab](#) or the Brock Library list of [databases](#) and click on "register" for an account. This requires you to move through the Brock proxy server and create a unique SciFinder-n username and password. This registration is time limited so follow up with email authentication asap. This account is yours and is different from your Brock proxy username/password. Once you have an account for SciFinder-n remember to use your Brock proxy username/password and then your unique SciFinder-n username/password to access this database. This SciFinder-n access is yours as long as you are a member of the Brock University community.

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1. Name the researcher to be used for this exercise writing out variations in the spelling of their first/last name and/or initials that are often used in publications (this is really important!):

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Yes/no (if so please include the ORCID URL and link, note whether it is open to the public)

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Yes/no, if yes, indicate below, if not, do it today, it is free and list below!

Dudding, Duncan, Metallinos, Atkinson, Yan, or Zelisko

<https://brocku.ca/mathematics-science/chemistry/>

2. Consult this faculty members research interests and publications to document keywords and phrases that best describe 1) chemistry subject areas / topics researched 2) substances/types/classes of chemical compounds investigated and 3) varying instrumentation, experimental equipment used as it relates to bio/synthetic/organic chemistry:

1. _____
2. _____
3. _____

Faculty

Inorganic Chemistry

Martin Lemaire

Associate Professor
Office: Cairns 508
Lab: Cairns 466
905 688 5550 x6432
mlemaire@brocku.ca

Georgii Nikonov

Professor
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Lab: Cairns 466
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gnikonov@brocku.ca

Melanie Pilkington

Professor
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Synthetic Lab: Cairns 466
Crystallography Lab: Cairns 460
905 688 5550 x3403
mpilkington@brocku.ca

Physical & Theoretical Chemistry

Divya Kaur Matta

Assistant Professor
Office: Cairns 511A
Labs: Mackenzie Chown H 207
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Lab Phone: 905 688 5550 x 4171
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Jianbo Gao

Assistant Professor
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Labs: Cairns 130, 133, 119 (Grad Office)
Office Phone: 905 688 5550 x
Lab Phone: 905 688 5550 x 3410
jgao@brocku.ca

Organic Chemistry

Jeffrey Atkinson

Professor
Office: Cairns 416
Lab: Cairns 457 and 542
905 688 5550 x3967
jatkinson@brocku.ca

Travis Dudding

Professor
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905 688 5550 x3405
tdudding@brocku.ca

Dustin Duncan

Assistant Professor
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Costa Metallinos

Professor
Office: Cairns 518
Lab: Cairns 542
905 688 5550 x3848
metallic@brocku.ca

Hongbin (Tony) Yan

Professor
Office: Cairns 415
Lab: Cairns 542
Office Phone: 905 688 5550 x3545
Lab Phone: 905 688 5550 x3411
tyan@brocku.ca

Paul Zelisko

Associate Professor
Office: Cairns 520
Lab: MCH 221
Office Phone: 905 688 5550 x4389
Lab Phone: 905 688 5550 x3350

<https://brocku.ca/mathematics-science/chemistry/>

Melanie Pilkington

Professor and Former Canada Research Chair, Chemistry



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Research Interests

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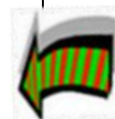
Courses

+



3. Follow instructions on the [Brock Library Chemistry Research Guide](#) under the “Articles” tab to register for a ~~SciFinder~~ SciFinder-n account, confirm registration by e-mail authentication, and sign into the ~~SciFinder~~ SciFinder-n database. Create a screen shot of your ~~SciFinder~~ SciFinder-n account search engine page below that includes your personal name located on this databases entry point to confirm that you have an account:

4. Search SciFinder-n by References to search for publications by your selected Researcher/Author Name. Be sure that your researcher/faculty member is the same person that is currently affiliated with Brock University noting that researchers use one or two initial and/or their full name and initial(s) to differentiate themselves, and other systems including ORCID IDs.



- a. SciFinder-n number of references for this researcher (remember initials, names, etc.):

- b. Filter/limit search results for this researcher to find the number of CAPlus (Chemical Abstracts) references:

- c. Filter References by Document Type = Journal, Language = English, and sort citations by Publication Date: Newest, to find the number of English language scholarly peer-reviewed articles:

- d. Filter and sort at will to find one recent article of interest that is somewhat connected with the work of this organic chemistry course. Cite this single article using ACS Style:

Read it, does it make sense, check out the substances, reactions, acknowledgements, references... create and paste a screen capture of the article's first page into this assignment:

- e. For this SciFinder-n article record the number of unique author keywords (if available):

- f. For this SciFinder-n article record the number of database concepts:

- g. For this SciFinder-n article record the number of unique substances (if available):

- h. For this SciFinder-n article select one **organic compound** that is of personal interest, and **has enough references, reactions and suppliers to be noteworthy**. Document the CAS Registry Number you have chosen:

5. Chemical structure searching. This is important for organic chemistry and related disciplines. Start a new search and click on SciFinder-n search for Reactions. There are several ways of doing this, click on the SciFinder-n Reactions option, click on the "Draw" icon and insert your CAS Registry number from question 4h. Click on the T search icon next to it, click off to just get the structure and click off "the Click and drag objects..." note. Also note that you can add substances/ structures, short cuts, compounds, reaction sequences... to create a unique structure searching reaction question... For this exercise just click OK. Then click the search icon next to the Draw icon when ready.

How many substances were found for this drawn structure?

6. Please provide the IUPAC name, registry number and molecular formula (using the Hill system) for your compound identified in question 4h:

IUPAC chemical name(s): _____

CAS Registry Number: _____

PubChem CID: _____

molecular formula: _____

Copy, cut and paste, or using a chemical drawing software e.g. [ChemDraw](#) or create a screen shot of an image or picture of your substance's chemical structure below:

Molecular or [chemical formulas](#) are never easy to create, especially for complex, biomolecular, pharmaceuticals, theoretical and trade compounds. There are many different naming conventions, styles and practices. CAS including [SciFinder-n](#) build on a specific naming system that is an industry standard, but there are variant names for chemicals, [PubChem](#) is another naming convention and open database, see if your compound is found in this database. The [Brock Library Chemistry Research Guide](#) is a resource for chemistry and related disciplines, click on the "Chemicals / Drugs" tab to find alternate and open naming databases.

For this [SciFinder-n](#) substance, click on Reactions, filter or limit by Substance Role: Product.

How many reactions as a product are documented in this database?

Browse these reactions noting that you can further limit by several variables related to reaction sequences, database filters, document types including journal articles and patents... and sort by several means including relevance, currency, number of steps, yield... and remember that each reaction is cited by at least one scholarly source.

Cite a relevant journal article, then filter by document type: patent - to find a patent. Cite both using ACS Style, (if you can't find a patent then just cite a second article):

Note the use of [ZoteroBib](#) to cite using ACS Style and check out the [ACS Quick Style Guide](#) for formatting different types of citations which is Part 4.3 in the [ACS Guide to Scholarly Communication](#).



https://zbib.org/

zotero**b**ib

Cite

Manual Entry

(1) Zhao, M.-N. Synthesis of 2,3-Diaryl-2H-Azirines via Cs₂CO₃-Mediated Cyclization of Ketoxime Acetates. *Org. Synth.* **2019**, 96, 66–79.
<https://doi.org/10.15227/orgsyn.096.0066>.

Close

Delete

Edit

Bibliography

American Chemical Society

▼

The screenshot displays the Zotero desktop application interface. The left sidebar shows a hierarchical library structure under "My Library". The central pane displays a list of research articles, with one article selected and its details shown in a tooltip. The right pane shows the "Info" tab for the selected article, listing authors and item type. A "Create Citation/Bibliography" dialog is open at the bottom right, showing citation styles and output options.

Library Structure (Left Sidebar):

- My Library
 - Adrianna
 - Alex
 - alex
 - anire
 - antonio
 - ARIANA
 - Ava
 - ayda
 - Sample Seed Articles
 - seed articles
 - Ayda Erin
 - CINAHL
 - Citations
 - Embase
 - medline
 - psycinfo
 - Review articles
 - Sample Seed Articles
 - theses / dissertations
 - WofS complete keyword
 - Ben
 - BIOL 2P96
 - bREE
 - Carley
 - charlie
 - CHEM 2P20
 - CISB

Article List (Central Pane):

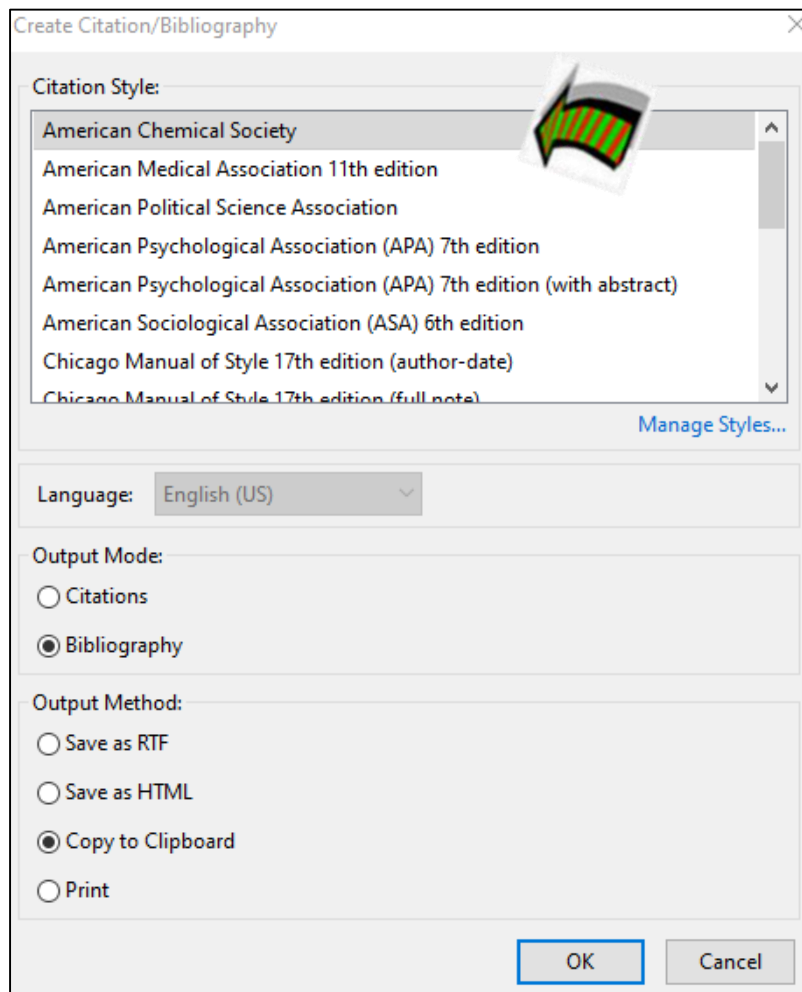
- X-ray Crystallography at a Small Canadian University - A Personal Perspective
- Versatile synthesis of chiral 6-oxoverdazyl radical ligands - new building blocks for multifunctional mole...
- Two in One: A Dinuclear Ru(II) Complex for Deep-Red Light-Emitting Electrochemical Cells and as an Ele...
- Transition Metal Single-Molecule Magnets: A {Mn31} Nanosized Cluster with a Large Energy Barrier of ~6...
- The Insertion of EII and EIV Chlorides (E = Si, Ge) into the Si-Si Bond of Disilylene
- The evolution of triphenylamine hole transport materials for efficient perovskite solar cells
- Synthesis, Study, and Application of Pd(II) Hydrazone Complexes as the Emissive Components of Single-...
- Synthesis, Structural, Magnetic and Computational Studies of a One-Dimensional Ferromagnetic Cu(II) C...
- Synthesis of New Derivatives of BEDT-TTF: Installation of Alkyl, Ethynyl, and Metal-Binding Side Chains a...
- Synthesis of 2,3-Diaryl-2H-azirines via Cs2CO3-Mediated Cyclization of Ketoxime Acetates
- Synthesis and catalytic performance of nickel phosphinite pincer complexes in deoxygenative hydrobora...
- Structural, Magnetic, and Optical Studies of the Polymorphic 9'-Anthracenyl Dithiadiazolyl Radical
- Stereoselective Synthesis of N-Propargyl Alkynes and Axial ChiralN-Allenenes with Epimeric Pyrroloimidazo...
- Stereoselective Synthesis of 1,1',2,2'-Tetrasubstituted Ferrocenes by Double Lithiation of a 1,1'-Disubstitut...
- Small Molecule Activation on a Base-stabilized Phosphinidene
- Shedding Light on the Diverse Reactivity of NacNacAl with N-Heterocycles
- Sequential Oxidation and C-H Bond Activation at a Gallium(I) Center
- Selective (1) Yang, S.; Zecchini, M.; Brooks, A.; Krivickas, S.; Dalligos, D.;
- Selective Matuszek, A.; Stares, E.; Pilkington, M.; Wallis,
- Selective J. Synthesis of New Derivatives of BEDT-TTF: Installation of Alkyl,
- Resolution Ethynyl, and Metal-Binding Side Chains and Formation of Tris(BEDT-TTF)
- Reactivity Systems. *MAGNETOCHEMISTRY* **2021**, 7 (8).
- Reaction <https://doi.org/10.3390/magnetochemistry7080110>.
- Practical
- Potential field continuation between arbitrary surfaces - Comparing methods
- Polypyridyl ligands as a versatile platform for solid-state light-emitting devices
- Oxidative addition of tetrathiocins to palladium(0) and platinum(0): a route to dithiolate coordination co...
- Organocatalysis Linked to Charge-Enhanced Acidity with Superelectrophilic Traits

Article Details (Right Pane - Info Tab):

- Item Type: Journal Article
- Title: Synthesis of New Derivatives of BEDT-TTF: Installation of Alkyl, Ethynyl, and Metal-Binding Side Chains and Formation of Tris(BEDT-TTF) Systems
- Author: Yang, SJ
- Author: Zecchini, M
- Author: Brooks, AC
- Author: Krivickas, SJ

Create Citation/Bibliography Dialog:

- Citation Style: American Chemical Society
- Language: English (US)
- Output Mode: Bibliography
- Output Method: Copy to Clipboard



(1)
Yang, S.; Zecchini, M.; Brooks, A.; Krivickas, S.; Dalligos, D.;
Matuszek, A.; Stares, E.; Pilkington, M.; Wallis,
J. Synthesis of New Derivatives of BEDT-TTF: Installation of Alkyl,
Ethynyl, and Metal-Binding Side Chains and Formation of
Tris(BEDT-TTF)
Systems. *MAGNETOCHEMISTRY* **2021**, 7 (8).
<https://doi.org/10.3390/magnetochemistry7080110>.

7. Scholarly Peer Review. Determine whether the article(s) you cited in the previous question is/are peer reviewed.

[What's Peer Review](#) (Brock Library, YouTube, 1:33),

Are these articles peer reviewed?

Yes/no

How do you know?

8. Comment: How might accessing [SciFinder-n](#) or equivalent scholarly databases help you in this course?
-

9. Comment: One thing you learned about the nature of your faculty member's research profile through this exercise?
-

10. Comment: One thing new you learned about [SciFinder-n](#), chemistry databases, and the nature of chemical information through this exercise?
-

Help is always available from the Brock Library using [Chat with a Librarian](#), emailing the library using libhelp@brocku.ca, book a [research consultation](#), talking with your lab advisor/TA, talking with colleagues, connecting with chemistry experts when appropriate using help@cas.org and consulting with any number of disciplinary research guides by [program](#), and the Brock Library [Chemistry](#) Research Guide.

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Good Afternoon, Ian

 All  Substances  Reactions  References  Suppliers

Search by Keyword, Substance Name, CAS RN, Patent Number, PubMed ID, AN, CAN, and/or DOI.

 Draw



Author Name

Enter last name, first name middle name.



Example: Schubert, J A



Add Advanced Search Field

Good Afternoon, Ian

 All

 Substances

 Reactions

 References

 Suppliers

Search by Keyword, Substance Name, CAS RN, Patent Number, PubMed ID, AN, CAN, and/or DOI.

 Draw



-

Author Name

Pilkington, M



Example: Schubert, J A



OR

Author Name

Pilkington, Melanie



Example: Schubert, J A



OR

ORCID ID

0000-0002-9274-8512



Add Advanced Search Field

CAS SciFinder[®]

Substances 2172923-16-7

×

Draw

Q

10

← Return to Results

← Prev (1 of 1) Next →

CAS Registry Number: 2172923-16-7

References (4)

Reactions (13)

Suppliers (0)

Download

Email

Save

$C_{12}H_{12}N_6O_2$

[2,2'-Bipyridine]-6,6'-dicarboxylic acid, 6,6'-dihydrazide (ACI)

Key Physical Properties	Value	Condition
Molecular Weight	272.26	-
Density (Predicted)	1.387±0.06 g/cm ³	Temp: 20 °C; Press: 760 Torr
pKa (Predicted)	10.44±0.10	Most Acidic Temp: 25 °C

[Spectra](#)

[Expand All](#) | [Collapse All](#)

Other Names and Identifiers

Experimental Spectra

Predicted Properties

Predicted Spectra

Additional Details

[Return to Home](#)

Substances from References

References Reactions Suppliers   Save and Alert

Filter Behavior

Filter by

Exclude

Search Within Results

Reaction Role

- ☐ Product (1,462)
- ☐ Reactant (973)
- ☐ Reagent (545)
- ☐ Catalyst (501)
- ☐ Solvent (270)

Reference Role

- ☐ Properties (7,004)
- ☐ Biological Study (6,519)
- ☐ Biological Study, Unclassified (6,456)
- ☐ Preparation (1,615)
- ☐ Synthetic Preparation (1,603)

[View All](#)

Commercial Availability

- ☐ Available (825)
- ☐ Not Available (6,680)

Number of Components

Molecular Weight

LogP

Stereochemistry

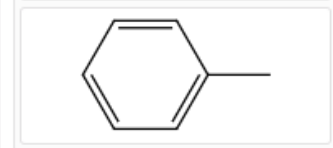
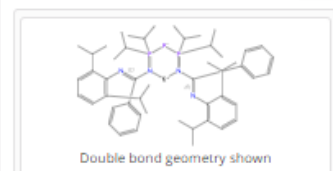
Element

7,505 Results

Sort: CAS RN: Descending View: Partial

1

2978079-53-5



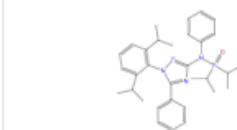
$C_{50}H_{72}KN_4P_3 \cdot 21/20 C_7H_8$

Components: 2

1 Reference 0 Reactions 0 Suppliers

2

2978079-52-4

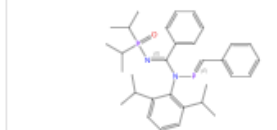


$C_{32}H_{41}N_3OP_2$

1 Reference 0 Reactions 0 Suppliers

3

2978079-51-3



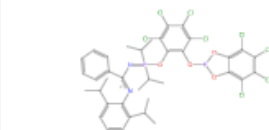
Double bond geometry shown

$C_{32}H_{42}N_2OP_2$

1 Reference 0 Reactions 0 Suppliers

4

2978079-50-2



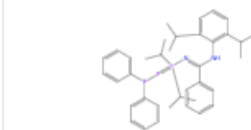
Double bond geometry shown

$C_{37}H_{36}Cl_8N_2O_4P_2$

1 Reference 0 Reactions 0 Suppliers

5

2978079-49-9

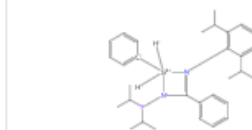


$C_{37}H_{47}N_2P_3$

1 Reference 0 Reactions 0 Suppliers

6

2978079-48-8



$C_{31}H_{43}N_2PSi$

1 Reference 0 Reactions 0 Suppliers

CAS SciFinder®

Reactions

Enter a query...

Draw

10

Return to Home

Reactions from References

References

Filter Behavior

Filter by Exclude

Search Within Results

Yield

☐ 90-100% (132)
 ☐ 80-89% (106)
 ☐ 70-79% (80)
 ☐ 50-69% (119)
 ☐ 30-49% (101)
 [View All](#)

Number of Steps

☐ 1 (706)
 ☐ 2 (441)
 ☐ 3 (313)
 ☐ 4 (204)
 ☐ 5 (73)
 ☐ 6-10 (32)

Non-Participating Functional Groups

☐ Ether (167)
 ☐ Alkene (147)
 ☐ Cyclic alkene (138)
 ☐ Sulfide (89)
 ☐ Imine (81)
 [View All](#)

Reaction Mapping

1,803 Results

Group: By Scheme

Sort: Relevance

View: Expanded

Scheme 1 (1 Reaction)

Steps: 1 Yield: 100%

Suppliers (88)

31-317-CAS-18692873

Steps: 1 Yield: 100%

1.1 Reagents: [Sodium methoxide](#)
 Solvents: [Methanol](#); overnight, reflux
 1.2 Reagents: [Acetic acid](#); neutralized
 1.3 rt; overnight, reflux

Experimental Protocols

A new nitrogen rich open chain diazine ligand system: synthesis coordination chemistry and magneto-structural studies

 By: Anwar, Muhammad U.; et al
 Dalton Transactions (2018), 47(8), 2511-2521

Full Text

Collapse Scheme

Scheme 2 (1 Reaction)

Steps: 1 Yield: 100%

Supplier (1)

Suppliers (63)

Suppliers (98)

CASSciFinder[®]

References

Edit Search

Enter a query...

×

Draw

Q

10

← Return to Results

← Prev (13 of 148) Next →

📖 Reactions of an aluminum(I) diketiminate compound with arenes

🔍 Substances (12)

🧪 Reactions (7)

👤 Citing (3)

🔔

🗺 Citation Map

📄

✉

🔖 Save ▾

JOURNAL

Source

Mendelev Communications

Volume: 32

Issue: 1

Pages: 68-70

Journal

2022

DOI:

[10.1016/j.mencom.2022.01.022](https://doi.org/10.1016/j.mencom.2022.01.022)

CODEN: MENCEX

ISSN: 0959-9436

Database Information

AN: 2022:633678

CAN: 178:137946

CPlus

Company/Organization

Department of Chemistry

Brock University

St. Catharines, Ontario L2S 3A1

Canada

Publisher

Elsevier B.V.

Language

English

By: Dmitrienko, Anton; [Pilkington, Melanie](#); Nikonov, Georgii I.

The reactivity of an aluminum(I) diketiminate compound NaCNacAl ($\text{NaCNac} = 2,6\text{-}i\text{Pr}_2\text{C}_6\text{H}_3\text{N:CMeCHCMe:NC}_6\text{H}_5\text{-}2,6\text{-}i\text{Pr}_2$) towards arenes has been systematically explored. Heating NaCNacAl in benzene results in a fragmentation of the NaCNac moiety due to cleavage of the C:N bond, while anthracene adds to the main group carbenoid in a [4+1] fashion, resulting in 9,10-dihydroanthracene-9,10-diyl and 1,4-dihydroanthracene-1,4-diyl adducts. Reactions with phenanthrene, triphenylene and fluoranthene demonstrate a reversible [4+1] addition process.

Keywords: diketiminate aluminum monovalent oxidative addition polycyclic aromatic hydrocarbon; polycyclic arene adduct aluminum diketiminate preparation oxidative addition; crystal mol structure aluminum diketiminate adduct polycyclic arene

🔍 View Source

Full Text ▾

Expand All | Collapse All

▼ Concepts

▼ Substances

▼ Cited Documents

<https://www.cas.org/support/training/scifinder-n>



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Substance Searching



Reaction Searching



Reference Searching



Patent Searching



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Where can I get help with seeking information?

Brock Library CHEM Research Guide

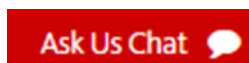
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- find information sources on your specific topic
- develop effective research strategies
- become a confident and independent researcher

1. Select One

▼ Librarian

Research Consultation (30 minutes) ▼

☐ Justine Cotton



☒ Ian Gordon (he/him)



☐ Jennifer Thiessen



☐ Elizabeth Yates



☐ Kymberly Ash



☐ Denise Smith



☐ Nicole Stradiotto



☐ Vanja Stojanovic



2. Select Date:

🕒

Nov ▼

2023

🕒

Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

3. Select Time:

Thursday, November 16, 2023

Time Zone: Eastern Time - US & Canada ([change](#))

9:03am	11:03am	11:33am
12:03pm	12:33pm	1:03pm
1:33pm	2:03pm	2:33pm
3:03pm	3:33pm	

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